



This document is a portion of the *Draft Cruise Ship Discharge Assessment Report (Draft Report)*, published on December 20, 2007. The reference number is EPA 842-R-07-005. The entire *Draft Report* can be accessed at http://www.epa.gov/owow/oceans/cruise_ships/disch_assess.html.

Draft Cruise Ship Discharge Assessment Report

Section 6: Hazardous Waste

December, 2007

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Hazardous waste is a subset of “solid waste,” and is a waste that contains hazardous constituents that can be liquid, solid, semisolid, or contained gas. On most cruise ships, the hazardous waste generated onboard is stored onboard until the wastes can be offloaded for recycling or disposal. Hazardous waste that is offloaded for disposal is handled in accordance with RCRA requirements, and must be sent to a licensed hazardous waste Treatment, Storage, and Disposal Facility (TSDF).

This section discusses the current state of information about hazardous waste, the laws regulating hazardous waste from vessels, how hazardous waste is managed on cruise ships, the potential environmental impacts of cruise ship hazardous waste, and federal actions taken to address hazardous waste from cruise ships.

6.1 What is hazardous waste and how much is generated on cruise ships?

Under federal law, “hazardous waste” is a subset of “solid waste.” The regulations implementing the Resource Conservation Recovery Act (RCRA) establish the criteria for defining “hazardous waste” with two basic approaches: a solid waste is a hazardous waste if it is either a waste that appears on one of the four hazardous waste lists (i.e., F-List, K-List, P-List, or U-List); or the solid waste exhibits at least one of four hazardous characteristics (ignitability, corrosivity, reactivity, or toxicity). Once a waste is identified as a hazardous waste, any person who generates or manages the hazardous waste must comply with all applicable state and federal regulations regarding its management. Hazardous wastes need to be stored, treated, and disposed in a manner so as to minimize the risks to human health and the environment.

The universe of hazardous waste is diverse – it is a waste that contains hazardous constituents that can be liquid, solid, semisolid, or contained gas. Daily cruise ship activities that produce hazardous wastes include photo processing, dry cleaning, and equipment cleaning. These resulting wastes contain a wide range of substances such as hydrocarbons, chlorinated hydrocarbons, heavy metals, paint waste, solvents, fluorescent and mercury vapor light bulbs, various types of batteries, and unused or outdated pharmaceuticals. Table 6-1 identifies different types of wastes generated on cruise ships that are, or may be, hazardous. This is only a list of typical wastes, and ultimately it is the responsibility of the person generating the waste (i.e., ship owner and/or operator) to make this determination and to comply with all applicable environmental requirements.

Table 6-1. Types of Potentially Hazardous Waste Generated Aboard Cruise Ships

Waste Type	Description
Photo Processing Waste (including X-ray development fluid waste)	Spent fixer, spent cartridges, expired film, and silver flake. The fixer removes unexposed silver compounds from the film during the developing process. Though silver-bearing waste is typically hazardous waste under RCRA due to silver content, RCRA regulations at 40 CFR 266.70, which apply to materials recycled to recover economically significant amounts of certain precious metals, including silver, do not include all of the requirements applicable to other types of hazardous wastes generally.

Waste Type	Description
Dry Cleaning Wastes	Dry cleaning units produce a small volume of waste from the bottoms of the internal recovery stills and filter media. This waste comprises dirt, oils, filter material, and spent solvent. The spent solvent is a chlorinated solvent called perchlorethylene (perc) and must be managed as a hazardous waste.
Print Shop Wastes	Printing solvents, inks, and cleaners may contain hydrocarbons, chlorinated hydrocarbons, and heavy metals.
Photocopying and Laser Printer Cartridges	Spent or discarded cartridges, inks, and toner materials are not typically defined as hazardous under the federal RCRA program, but may be hazardous waste under some authorized state programs.
Used Cleaners, Solvents, Paints, and Thinners	Degreasing materials are a common element of maintenance onboard vessels; tetrachloroethylene is used for metal-degreasing.
Used or Outdated Pharmaceuticals	Cruise ships have pharmaceuticals based on the ship's itinerary and the demographics of the passenger base. Inventory that is discarded because it is off specification or has exceeded shelf life may qualify as hazardous waste.
Incinerator Ash	Incinerator ash may contain constituents, such as heavy metals, in concentrations that would classify the ash as hazardous waste under RCRA.
Fluorescent/Mercury Vapor Bulbs	These bulbs contain small amounts of mercury, and therefore lamps containing these types of bulbs might qualify as RCRA hazardous waste when discarded. To promote the safe recycling and disposal of certain used lamps, EPA classifies these lamps as Universal Waste (40 CFR 273.5). For more information, see www.epa.gov/epaoswer/hazwaste/id/univwast/lamps/lamps.htm .
Batteries	<p>Large batteries are used on tenders and standby generators; small batteries are used in flashlights and cameras. Other equipment on board may also require batteries. Four types of batteries typically used onboard cruise ships are:</p> <ul style="list-style-type: none"> • <u>Lead-acid</u> – Batteries that are wet, rechargeable, and usually six-celled typically contain a sponge lead anode, a lead dioxide cathode, and a sulfuric acid electrolyte that is corrosive. • <u>Nickel Cadmium (Nicad)</u> – Batteries that are usually rechargeable and contain wet or dry potassium hydroxide as an electrolyte. The potassium hydroxide is corrosive; cadmium is a characteristic hazardous waste. • <u>Lithium</u> – Batteries used for flashlights and portable electronic equipment. Some spent lithium batteries, specifically, lithium metal-sulfide batteries, may constitute hazardous wastes based on the "reactivity" criterion (D003). • <u>Alkaline</u> – Batteries used for flashlights and other personal equipment. Though spent alkaline batteries are not considered hazardous waste under federal regulations, some alkaline batteries might be defined as hazardous waste under some authorized states' more stringent (or broader in scope) hazardous waste regulations (e.g., some states include tests, such as bioassay tests, to define hazardous waste, and some alkaline batteries may fail this test).
Spent Explosives	Explosives are used occasionally in small quantities for celebratory (e.g., theatrical productions, parties, etc.) and/or emergency purposes (e.g., lifeboat flares). Discarded explosives are managed as hazardous waste (ADEC, 2002).

Sources: ADEC, 2000 and ADEC, 2002

Limited information is available on the amount of hazardous waste that a cruise ship might generate. Table 6-2 presents estimates of the hazardous waste generated in one week by the Holland America Lines fleet which consists of 11 vessels.

Table 6-2. Estimates of Hazardous Waste Generated Onboard Holland America Lines Fleet Per Week

Waste Type	Amount Generated by the Fleet (11 Vessels)
Photo wastes	2262 gallons/week
Discarded and expired chemicals	1735 lbs/week
Medical Waste	45 lbs/week
Batteries	75 lbs/week
Fluorescent Lights	153 lbs/week
Explosives	6 lbs/week
Spent paints and thinners	213 gallons/week

Source: The information above is the hazardous waste production per week by Holland America Lines Fleet, as reported in their 2000 Environmental Report (ADEC, 2002).

6.2 What laws apply to hazardous waste on cruise ships?

6.2.1 Clean Water Act

As explained in Section 5 on solid waste, the Clean Water Act (CWA; 33 U.S.C. § 1251 et seq.) prohibits any person from discharging any pollutant from any point source into waters of the United States, except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit or otherwise authorized under the Act. The term “point source” is defined to include a “vessel or other floating craft.” Under Clean Water Act section 502(12)(b), the requirement for an NPDES permit applies to the addition of any pollutant from any point source "other than a vessel or other floating craft" in the contiguous zone or the ocean, i.e., outside the territorial seas. Whether a discharge is authorized under an NPDES permit affects applicability of the Resource Conservation and Recovery Act (RCRA); dissolved and solid materials in industrial discharges which are point sources subject to NPDES permits are not "solid waste" under the RCRA statute and thus not "hazardous waste." This only applies to materials once they have been discharged. Prior to being discharged pursuant to an NPDES permit, wastes remain subject to RCRA if they are hazardous wastes.

Section 311 of the CWA also prohibits the discharge of oil or hazardous substances into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone, or in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States in such quantities as may be harmful, as determined by the President. In Executive Order Number 11735, the President delegated to EPA the authority to determine these quantities. EPA has identified the quantities that may be harmful for hazardous substances in regulations at 40 CFR 117 and for oil in regulations at 40 CFR 110. Section 311(b)(5) of the CWA also requires the person in charge of a vessel or an onshore facility or an offshore facility to, as soon as he has knowledge of any discharge of oil or a hazardous substance in violation of Section 311, immediately notify the National Response Center of the discharge.

6.2.2 Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) imposes management requirements on generators, transporters, and persons who treat or dispose of hazardous waste. Cruise ships regularly use chemicals for operations ranging from routine maintenance such as cleaning and painting, to passenger services such as dry cleaning, beauty parlors, and photography labs. Thus, cruise ships or passenger service facilities within cruise ships may be subject to RCRA requirements. Issues the cruise ship industry may face relating to RCRA include ensuring the hazardous waste identification is made at the point at which a hazardous waste is considered generated; ensuring that parties are properly identified as generators, storers, treaters, or disposers; and determining the applicability of RCRA requirements to these parties.

RCRA (42 U.S.C. §§ 6901 et seq.) is the federal law that, among other things, defines and regulates solid waste and hazardous waste. RCRA is designed to minimize the hazards of waste disposal, conserve resources through waste recycling, recovery, and reduction, and ensure waste management practices that are protective of human health and the environment. In order to achieve these goals, RCRA established a Solid Waste Program (RCRA Subtitle D) and a Hazardous Waste Program (RCRA Subtitle C).¹ Subtitle C of RCRA establishes a hazardous waste management system that controls hazardous waste from the point of generation until ultimate disposal, also referred to as a “cradle-to-grave” program. As part of this program, RCRA Subtitle C regulates hazardous waste generators. The owner or operator of a cruise ship may be a “generator” and/or a “transporter” of hazardous waste. EPA regulation (40 CFR 260.10) defines a generator to mean any person, by site, whose act or process produces hazardous waste, or whose act first causes a hazardous waste to become subject to regulation. EPA regulation (40 CFR 260.10) defines a transporter to mean a person engaged in the transportation of hazardous waste by air, rail, highway, or water.

As stated previously, the RCRA regulations contain criteria for identifying whether or not a solid waste is a hazardous waste (40 CFR 261, Subparts C and D). There are two basic ways a waste is defined as hazardous under RCRA: it is either a waste that appears on one of the four hazardous waste lists (i.e., F-List, K-List, P-List, or U-List); or the waste exhibits at least one of four hazardous characteristics (ignitability, corrosivity, reactivity, or toxicity). EPA’s RCRA regulations at 40 CFR 262.11 require that any person who produces or generates a waste must determine if that waste is hazardous. Once a waste is identified as a hazardous waste, any person who generates or manages the hazardous waste must comply with all applicable federal regulations regarding its handling and management.

Hazardous waste generators are regulated based on the amount of hazardous waste produced each month. Table 6-3 shows that generators are divided into three categories: large quantity generators (LQGs); small quantity generators (SQGs); and conditionally exempt small quantity generators (CESQGs). LQGs are facilities that generate greater than or equal to 1,000 kg of hazardous waste per month, greater than 1 kg of acutely hazardous waste per month (i.e., any waste denoted with the hazard code “H” and all P-listed wastes), or greater than 100 kg of acute

¹ In states with RCRA programs authorized by EPA, the authorized state RCRA program operates in lieu of the federal RCRA program. Some states have authorized RCRA programs that are more stringent than the federal RCRA program.

spill residue or soil per month (i.e., soil, waste, or debris resulting from the cleanup of an acute hazardous waste spill). SQGs are facilities that generate between 100 kg and 1,000 kg of hazardous waste per month. CESQGs are facilities that generate ≤ 100 kg of hazardous waste per month; ≤ 100 kg of acute spill residue or soil per month; or ≤ 1 kg of acutely hazardous waste per month.

Generator status is determined on a monthly basis, so it is possible for a generator's (e.g., a cruise ship) status to change from one month to the next, depending upon waste generation during that period. If a generator's status does change, the generator is required to comply with the applicable regulatory requirements for that class of generators for the hazardous waste generated in that particular month. For example, if a generator has reached LQG status in a particular month, then biennial reporting is required, and all of the other regulatory requirements applicable to large quantity generators will apply to the waste generated in that month. Accurate counting of the waste is critical, because the regulations are specific to each generator type. EPA regulations (40 CFR 261.5(c) and (d)) specify the types of hazardous wastes that must be included in a generator's monthly count. EPA regulation (40 CFR 262.34) specifies the threshold quantities for LQGs and SQGs and includes limits on the amount of time hazardous waste may be accumulated on site before being sent offsite for further management (e.g., treatment, recycling, disposal, etc.). EPA regulation (40 CFR 261.5) also specifies threshold quantities for CESQGs, as shown in Table 6-3. There is no accumulation time limit for CESQGs. According to the Congressional Research Service (CRS, 2007), the generator classification assigned to individual cruise ships is often unclear. However, once a cruise ship has determined its appropriate generator classification, the cruise ship must follow the appropriate accumulation requirements.

Table 6-3. Classification System and Accumulation Limits for Hazardous Waste Generators

Classification of Generator	Amount of Hazardous Waste Generated Per Month	Amount of Acutely Hazardous Waste Generated Per Month	Amount of Acute Spill Residue Generated Per Month	On-site Accumulation Time	On-site Quantity Limit
Large Quantity Generators	≥ 1000 kg	> 1 kg	> 100 kg	≤ 90 days on site	No Limit
Small Quantity Generators	$100 \text{ kg} < 1000 \text{ kg}$	N/A	N/A	≤ 180 day on site or ≤ 270 if shipped 200 miles or more	6,000 kg
Conditionally Exempt Small Quantity Generators	≤ 100 kg	≤ 1 kg	≤ 100 kg	N/A	1,000 kg 1kg acute 100 kg residue

Source: EPA, 2005

Any individual cruise ship that is identified as a large or small generator (i.e., LQG or SQG) is required to have a "Cruise Ship Identification Number" to identify both the type and quantity of

hazardous waste onboard (40 CFR 262.12); comply with the manifest system (40 CFR 262, Subpart B); handle wastes properly before shipment (40 CFR 262, Subpart C); and comply with record-keeping and reporting requirements (40 CFR 262, Subpart D). The identification number is used to identify a generator and to track waste activities, as well as to provide increased coordination between the USCG, EPA, and states. The number remains with a vessel, and is used on all hazardous waste manifests, regardless of where the waste is off-loaded in the United States. Upon off-loading hazardous waste, the cruise ship must comply with that particular off-loading state's RCRA requirements, whether or not that state assigned the ID number.

The Hazardous Waste Manifest System is a set of forms, reports, and procedures designed to track hazardous waste from the time it leaves the generator where it was produced, until it reaches the off-site waste facility that will store, treat, or dispose of the hazardous waste (for more information on the Hazardous Waste Manifest System, see <http://www.epa.gov/epaoswer/hazwaste/gener/manifest/>). The system enables waste generators to verify that their waste has been properly delivered, and that no waste has been lost or unaccounted for in the process (40 CFR 262, Subpart B).

EPA's RCRA regulations (40 CFR 273) also specify that a number of the hazardous wastes generated aboard cruise ships may be treated as Universal Wastes under the Universal Waste Program. The Universal Waste Program was developed under RCRA to streamline collection requirements for certain widely-generated hazardous wastes to promote waste recycling, and to ease the regulatory burden associated with handling, transportation, and collection. Waste considered to be "widely-generated" includes batteries, pesticides, mercury-containing equipment, and lamps with hazardous components (e.g., fluorescent, metal halide, and high pressure sodium). The Universal Waste Rule allows a facility (e.g., a cruise ship) additional time for these wastes to accumulate for recycling or disposal and thereby streamlines requirements related to hazardous waste notification, labeling, marking, employee training, responses to releases, offsite shipments, tracking, exports, and transportation.

6.2.3 The Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; U.S.C. § 9601 et seq.) regulates the release of "hazardous substances" of which RCRA hazardous wastes are a sub-set. CERCLA provides that any person in charge of a vessel or an offshore or an onshore facility shall, as soon as he has knowledge of any release (other than a "federally permitted release") of a hazardous substance from such vessel or facility in quantities equal to or greater than those determined pursuant to CERCLA section 9602, immediately notify the National Response Center of such release. The National Response Center conveys the notification expeditiously to all appropriate government agencies. While the universe of CERCLA hazardous substances is larger than RCRA hazardous wastes (see 40 CFR 302.4 for the complete list of CERCLA hazardous substances), all RCRA hazardous wastes are by definition CERCLA hazardous substances. Therefore, in addition to the RCRA "cradle-to-grave" requirements summarized elsewhere in this section, releases of RCRA hazardous waste in amounts above the regulatory threshold are subject to reporting as a CERCLA hazardous substance unless excepted as a federally permitted release.

6.3 How do cruise ships manage hazardous waste?

Hazardous waste generated onboard cruise ships are stored onboard until the wastes can be offloaded for recycling or disposal. Hazardous waste that is offloaded for disposal is handled in accordance with RCRA requirements, and must be sent to a licensed hazardous waste Treatment, Storage, and Disposal Facility (TSDF). RCRA establishes waste treatment standards for TSDFs that make the hazardous waste safe for land disposal.

Cruise Lines International Association (CLIA) member lines have adopted programs of waste minimization, waste reuse and recycling, and waste stream management. In the development of industry practices and procedures for waste management, member lines of CLIA have agreed to incorporate various standards for waste stream management into their Safety Management Systems (see Section 1.3). CLIA member lines have stated that hazardous wastes and waste streams onboard cruise vessels will be identified and segregated for individual handling and management in accordance with appropriate laws and regulations. They have further stated that hazardous wastes will not be discharged overboard, nor be commingled or mixed with other waste streams. With regard to hazardous waste collection and storage onboard ships, CLIA member lines have stated that specific procedures for hazardous waste collection, storage and crew training will be addressed in each ship's Safety Management System or equivalent onboard instruction in the case of U.S. registry vessels.

CLIA members have endorsed the following when treating hazardous waste (CLIA, 2006):

Photo Processing, Including X-Ray Development Fluid Waste -- Eliminate the discharge of silver from these sources into the marine environment through the use of best available technology that will reduce the silver content of the waste stream below levels specified by prevailing regulations and land the remaining effluent ashore as industrial waste or by treating all photo processing and x-ray development fluid waste (treated or untreated) as a hazardous waste and landing ashore in accordance with RCRA requirements.

Dry-cleaning Waste Fluids and Contaminated Materials -- Prevent the discharge of chlorinated dry-cleaning fluids, sludge, contaminated filter materials and other dry-cleaning waste byproducts into the marine environment by treating perchloroethylene (perc) and other chlorinated dry-cleaning fluids, contaminated sludge and filter materials as a hazardous waste and landing ashore in accordance with RCRA requirements.

Print Shop Waste Fluids -- Prevent the discharge of hazardous wastes from printing materials (inks) and cleaning chemicals into the marine environment by utilizing, whenever possible, printing methods and printing process chemicals that produce both less volume of waste and less hazardous waste products; training shipboard printers in ways to minimize printing waste generated; and using, whenever possible, alternative printing inks such as soy based, non-chlorinated hydrocarbon based ink products. All print shop waste including waste solvents, cleaners, and cleaning cloths will be treated as hazardous waste, if such waste contains chemical components that may be considered as hazardous by regulatory definitions, and that all other waste may be treated as non-hazardous.

Photo Copying and Laser Printer Cartridges -- Initiate procedures so as to maximize the return of photocopying and laser printer cartridges for recycling, and in any event, bring these cartridges ashore; use only inks, toners and printing/copying cartridges that contain non-hazardous chemical components, and none of these cartridges or their components should be disposed of by discharge into the marine environment. In recognition of the member lines' goal of waste minimization, they have further agreed these cartridges should, whenever possible, be returned to the manufacturer for credit, recycling, or for refilling.

Unused and Outdated Pharmaceuticals -- Ensure that unused and/or outdated pharmaceuticals are effectively and safely disposed in accordance with legal and environmental requirements by establishing a reverse distribution system for returning unexpired, unopened non-narcotic pharmaceuticals to the original vendor; appropriately destroying narcotic pharmaceuticals onboard ship in a manner that is witnessed and recorded; landing listed pharmaceuticals in accordance with local regulations (listed pharmaceuticals are a hazardous waste having chemical compositions which prevent them from being incinerated or disposed of through the ship's sewer system. Listing of such pharmaceuticals may vary from state to state); and disposing of other non-narcotic and non-listed pharmaceuticals through onboard incineration or landing ashore.

Fluorescent and Mercury Vapor Lamp Bulbs -- Prevent the release of mercury into the environment from spent fluorescent and mercury vapor lamps by assuring proper recycling or by using other acceptable disposal methods (disposal of the glass tubes can be accomplished by (1) processing with shipboard lamp crusher units that filter and adsorb the mercury vapor through H.E.P.A. and activated carbon or (2) by keeping the glass tubes intact for recycling ashore. The intact lamps or crushed bulbs are classified as "Universal Waste" when they are shipped to a properly permitted recycling facility; as such, testing is not required. The filters are disposed of as a hazardous waste in accordance with applicable US EPA or other prevailing laws and regulations).

Batteries -- Prevent the discharge of spent batteries into the marine environment by isolating discarded batteries from the refuse waste stream to prevent potentially toxic materials from inappropriate disposal. The wet-cell battery-recycling program is kept separate from the dry battery collection process. Unless recycled or reclaimed, batteries are disposed of as hazardous waste.

Incinerator Ash -- Reduce the production of incinerator ash by minimizing the generation of waste and maximizing recycling opportunities; prevent the discharge of incinerator ash containing hazardous components through a program of waste segregation and periodic ash testing.

It is possible that during waste management and waste segregation, hazardous waste may be incinerated with solid wastes, resulting in hazardous ash; however, the discharge of incinerator ash containing hazardous components can be prevented through a program of waste segregation and periodic ash testing. According to CLIA (2006), incinerator ash is not normally hazardous because the hazardous waste is separated out from other solid wastes. Proper waste management is necessary to ensure that hazardous materials are not introduced into the incinerator.

According to CLIA (2006), this focuses the use of incinerators of CLIA member lines primarily for food waste, contaminated cardboard, some plastics, trash, and wood. With this approach, incinerator ash is not normally a hazardous waste (CLIA, 2006), as the abovementioned waste management strategies call for the removal of items that would cause the ash to be hazardous. Further, those items separated out from the waste stream would then be handled according to accepted hazardous waste protocols.

Member lines have agreed that incinerator ash will be tested at least once quarterly for the first year of operation to establish a baseline and that testing may then be conducted once a year. The member lines have further agreed that a recognized test procedure will be used to demonstrate that ash is not a hazardous waste. Proper hazardous waste management procedures are to be instituted onboard each ship to assure that waste products which would result in a hazardous ash are not introduced into the incinerator. Non-hazardous incinerator ash is disposed of at sea in accordance with MARPOL Annex V. If any ash is identified as being hazardous, it is to be disposed of ashore in accordance with RCRA. (CLIA, 2006.)

The cruise ship industry is also researching and, in some cases, installing new technologies and design features to minimize hazardous waste generation (ADEC, 2000):

- Effective and efficient digital photo technology to reduce hazardous waste stream generation during photo processing.
- Alternative dry cleaning processes such as CO₂ and wet (i.e., a water-based alternative to dry cleaning) processes.
- Use of non-toxic printing ink and non-chlorinated solvents and other non-hazardous products to eliminate hazardous wastes in print shops.

6.4 What are the potential environmental impacts associated with hazardous waste from cruise ships?

Although the quantities of hazardous waste generated on cruise ships are small, their toxicity to sensitive marine organisms can be significant (CRS, 2007). When hazardous waste generated aboard cruise ships is properly identified, stored, and treated and/or disposed onshore, the risk posed to the environment is normally minimized. Hazardous wastes should be properly stored and segregated from other wastes where required by law (e.g., incompatible hazardous wastes cannot be stored together) and where necessary to ensure proper management. To ensure hazardous waste is handled and disposed of properly, adequate operational procedures and employee training and, in some instances, passenger training (e.g., clear demarcation of the proper locations for the onboard discard of materials that may be hazardous) is necessary.

After three years of sampling and analysis, ADEC (2002) determined that sewage and graywater waste streams are not used for hazardous waste disposal and that cruise ships screen for hazardous waste prior to incineration. However, there are a number of possible hazardous waste streams produced on cruise ships, including perchloroethylene, silver, mercury, hydrocarbons, heavy metals, and corrosives that could enter the environment and cause harm if not appropriately managed as required under RCRA.

6.5 What action is the federal government taking to address hazardous waste from cruise ships?

EPA has brought multiple enforcement actions against cruise ship operators for illegal discharges of hazardous substances and other pollutants to ensure that cruise ships comply with these requirements through environmental management systems developed as conditions of probation in criminal plea agreements.

EPA and states have worked together to develop a system whereby an EPA hazardous waste identification (ID) number is assigned to every cruise ship (EPA, 2001). Previously, cruise ships were receiving different numbers from a variety of states upon off-loading hazardous waste. As a result, cruise ships were receiving multiple identification numbers and creating multiple copies of hazardous waste management records. Implementation of this 2001 policy has enabled individual cruise ships to be assigned a single EPA hazardous waste identification number for the purposes of identification as a generator of hazardous waste under the Resource Conservation and Recovery Act.

Under the 2001 policy, the following procedures apply (EPA, 2001):

- a) A cruise ship determines its American-based home port state (the state in which it has corporate offices or its main port of call).
- b) After determining the home port state, the cruise line notifies the selected state or corresponding EPA regional office of its hazardous waste activities.
- c) The cruise ship identifies its hazardous waste generator size in accordance with 40 CFR 261.5(c).
- d) The home port state or EPA regional office issues a hazardous waste identification number for the cruise ship. The number reflects the home port state initials and ten alphanumeric characters.

After the identification number is assigned, that number remains with the ship, and is used for all hazardous waste manifests, regardless of where the waste is off-loaded in the United States. The assignment of the EPA ID number does not affect the applicability of state-specific RCRA requirements; cruise ships must still comply with each state's RCRA requirements when off-loading hazardous waste, regardless of which state assigned the ID number. The ship must provide records to the relevant individual off-loading state as required by that state's laws.

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